IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A communication system for increasing a capacity by implementing one-frequency reuse with a non-spread spectrum system, wherein:

a transmitting station side including at least two sending stations each corresponding to a respective user, and employing a different interleave method configured to transmit a transmission signal obtained by segmenting transmission information into a plurality of frames, encoding each frame, power amplifying each encoded signal with a different amplitude, and interleaving all signals with each amplified signal collected into one channel; and

a receiving station side configured to reproduce said transmission channel signal into original segmental frames by de-interleaving said transmitting signal from the at least two sending stations in correspondence to each different interleave method, sequentially decoding codes of the signal in descending order of Signal-to-Interference and Noise power Ratio, and re-encoding the decoded signal to successively cancel the re-encoded signal from said transmission signal,

wherein the transmitting station side is configured to monitor propagation path conditions such as traffic conditions at certain intervals to update an amplitude value of each code with reference to a number of interference signals satisfying predetermined criteria, defining considerable interference signals, and update the number of code words for one frame and noise power according to said propagation path conditions.

Claim 2 (Previously Presented): The communication system according to claim 1, wherein the different interleaving methods correspond to different users.

Claim 3 (Previously Presented): The communication system according to claim 1, wherein the different interleaving methods correspond to different cells.

Claim 4 (Previously Presented): The communication system according to claim 1, wherein the transmitting station side is configured to change a rate of amplitude amplification for each frame according to a decoding capability of the receiving station side.

Claim 5 (Previously Presented): The communication system according to claim 1, wherein the transmitting station side is configured to determine the number of codes to be multiplexed according to a decoding capability or a process capability of the receiving station side.

Claim 6 (Canceled).

Claim 7 (Currently Amended): The communication system according to claim [[6]] 1, wherein the transmitting station side is configured to perform calculation of the amplitude value of each code by taking into account a residual interference power including a power sum of interference signals which are not the considerable interference signals.

Claim 8 (Currently Amended): The communication system according to claim 7, wherein the transmitting station side is configured to increase [[the]] an amplitude of a low-level code when an average residual interference power exceeds a threshold level.

Claim 9 (Previously Presented): The communication system according to claim 8, wherein the transmitting station side is configured to adapt the adjustment of the number of

considerable interference signals, the number of codes for one frame and an amplitude margin to maintain an average transmission power when an increase of the amplitude of the low-level code is attained.

Claim 10 (Currently Amended): A transmitting apparatus for transmitting information using a non-spread spectrum system, comprising:

frame segmenting means for segmenting transmission information into a plurality of frames;

encoding means for encoding each frame;

power amplification means for power amplifying each encoded signal with different amplitude;

said power amplification means changes a rate of amplitude amplification for each frame according to a decoding capability in a receiving station side;

interleaving means for interleaving all signals with each amplified signal collected into one channel; [[and]]

transmitting means for transmitting a transmission signal obtained by the interleaving via the one channel; and

propagation path condition monitoring means for monitoring propagation path conditions such as traffic conditions at predetermined intervals, wherein said power amplification means updates an amplitude value of each code with reference to a number of interference signals satisfying predetermined criteria, defining considerable interference signals, and update the number of code words for one frame and noise power according to said propagation path conditions.

Claim 11 (Canceled).

Claim 12 (Previously Presented): The transmitting apparatus according to claim 10, wherein said frame segmenting means determines the number of codes to be multiplexed according to a decoding capability or a process capability of a receiving station side.

Claim 13 (Canceled).

Claim 14 (Currently Amended): The transmitting apparatus according to claim [[13]] 10, wherein said power amplification means performs calculation of the amplitude value of each code by taking into account a residual interference power including a power sum of interference signals which are interference signals not the considerable interference signals.

Claim 15 (Currently Amended): The transmitting apparatus according to claim 14, wherein said power amplification means increases [[the]] an amplitude of a low-level code when an average residual interference power exceeds a threshold level.

Claim 16 (Previously Presented): The transmitting apparatus according to claim 15, wherein said power amplification means adapts adjustment of the number of considerable interference signals, the number of codes for one frame, and an amplitude margin to maintain an average transmission power when an increase in the amplitude of the low-level code is attained.

Claim 17 (Currently Amended): A transmitting method for transmitting information using a non-spread spectrum system, comprising:

segmenting transmission information into a plurality of frames;

encoding each frame;

power amplifying each encoded signal with different amplitude said power amplification means changes a rate of amplitude amplification for each frame according to a decoding capability in a receiving station side;

interleaving all signals with each amplified signal collected into one channel; [[and]]

transmitting a transmission signal obtained by the interleaving via the one channel; and

monitoring propagation path conditions such as traffic conditions at certain intervals, wherein said power amplification updates an amplitude value of each code with reference to a number of interference signals satisfying predetermined criteria, defining considerable interference signals, and updates the number of code words for one frame and the noise power according to said propagation path conditions.

Claim 18 (Canceled).

Claim 19 (Previously Presented): The transmitting method according to claim 17, wherein said frame segmenting means determines the number of codes to be multiplexed according to a decoding capability or a process capability of a receiving station side.

Claim 20 (Canceled).

Claim 21 (Currently Amended): The transmitting method according to claim [[20]] 17, wherein said power amplification performs calculation of the amplitude value of each code by taking into account a residual interference power including a power sum of interference signals which are not the considerable interference signals.

Claim 22 (Previously Presented): The transmitting method according to claim 21, wherein said power amplification increases the amplitude of a low-level code when an average residual interference power exceeds a threshold level.

Claim 23 (Previously Presented): The transmitting method according to claim 22, wherein said power amplification adapts adjustment of the number of considerable interference signals, the number of codes for one frame, and an amplitude margin to maintain an average transmission power when an increase in the amplitude of the low-level code is attained.

Claim 24 (Currently Amended): A receiving apparatus, comprising:

receiving means for receiving a transmission signal from at least two sending stations each corresponding to a user, and, each employing a different interleave method, the transmission signal obtained by encoding each frame resulting from segmentation of transmission information, power amplifying each encoded signal with a different amplitude, and interleaving all signals with each amplitude signal collected into one channel, and by monitoring propagation path conditions such as traffic conditions at certain intervals to update an amplitude value of each code with reference to a number of interference signals satisfying predetermined criteria, defining considerable interference signals, and updating the number of code words for one frame and noise power according to said propagation path conditions,

de-interleaving means of de-interleaving said transmission signal from the at least two sending stations in correspondence to each different interleave method;

decoding means of successively decoding codes of the signal in descending order of Signal-to-Interference and Noise power Ratio; and

signal canceling means of re-encoding the decoded signal to successively cancel the re-encoded signal from said transmission signal.

Claim 25 (Currently Amended): A receiving method, comprising:

receiving a transmission signal from at least two sending stations each corresponding to a user, and each employing a different interleave method, the transmission signal obtained by encoding each frame resulting from segmentation of transmission information, power amplifying each encoded signal with a different amplitude, and interleaving all signals with each amplitude signal collected into one channel, and by

monitoring propagation path conditions such as traffic conditions at certain intervals to update an amplitude value of each code with reference to a number of interference signals satisfying predetermined criteria, defining considerable interference signals, and updating the number of code words for one frame and noise power according to said propagation path conditions,

de-interleaving said transmission signal from the at least two sending stations in correspondence to each different interleave method;

successively decoding codes of the signal in order of Signal to Interference and Noise power Ratio; and

re-encoding the decoded signal to successively cancel of the re-encoded signal from said transmission signal.

Claim 26 (Currently Amended): An unbalance code mixing method for carrying out an unbalance code mixing of information transmitted using a non-spread spectrum system, comprising:

segmenting transmission information into a plurality of frames;

encoding each frame;

power amplifying each encoded signal with a different amplitude said amplification changes a rate of amplitude amplification for each frame according to a decoding capability in a receiving station side; and

interleaving all signals with each amplified signal collected into one channel,

wherein said power amplification updates an amplitude value of each code with reference to a number of interference signals satisfying predetermined criteria, defining considerable interference signals, and updates the number of code words for one frame and noise power according to said propagation path conditions.

Claim 27 (Canceled).

Claim 28 (Previously Presented): The unbalance code mixing method according to claim 26, wherein said frame segmenting determines the number of codes to be multiplexed according to a decoding capability or a process capability realizable in a receiving station side.

Claim 29 (Canceled).

Claim 30 (Currently Amended): The unbalance code mixing method according to claim [[29]] 26, wherein said power amplification performs calculation of the amplitude value of each code by taking into account a residual interference power including a power sum of interference signals which are not the considerable interference signals.

Claim 31 (Currently Amended): The unbalance code mixing method according to claim 30, wherein said power amplification increases [[the]] an amplitude of a low-level code when an average residual interference power exceeds a threshold level.

Claim 32 (Previously Presented): The unbalance code mixing method according to claim 31, wherein said power amplification adapts adjustment of the number of considerable interference signals, the number of code words for one frame and an amplitude margin to maintain an average transmission power, when an increase in the amplitude of the code of the low-level is attained.

Claim 33 (Currently Amended): A decoding method, comprising:

decoding a transmitting signal from at least two sending stations each corresponding to a user, and each employing a different interleave method, the transmission signal obtained by encoding each frame resulting from segmentation of transmission information, power amplifying each encoded signal with a different amplitude, and interleaving all signals with each amplitude signal collected into one channel, ~~comprising:~~ and

monitoring propagation path conditions such as traffic conditions at certain intervals to update an amplitude value of each code with reference to a number of interference signals satisfying predetermined criteria, defining considerable interference signals, and update the number of code words for one frame and noise power according to said propagation path conditions,

de-interleaving said transmission signal from the at least two sending stations in correspondence to each different interleave method;

decoding successively codes of the signal in descending order of Signal-to-Interference and Noise power Ratio; and

re-encoding the decoded signal to successively cancel the re-encoded signal from said transmission signal.